Restoring Vintage Simmons Drum Pads

Cosmetic Repairs and Restoration

by Alan Levesque

I remember the day I brought home my brand new set of Simmons SDSV's. The pads were yellow, shiny, and beautiful. And of course, *that* shape…the radically simple yet stunning hexagon-shaped pads I had coveted since first glancing at them in printed *Modern Drummer* ads.. were now in my hands. The Brain, now occupying its place atop a road case next to my hi-hat, looking amazing.. it was surreal. Of course the next obvious step was to reconfigure the kit to mimic that of Mr Bruford's no less!! The year was 1985, and although snubbed and refuted by many "traditionalists" at the time, the SDSV's could not be manufactured fast enough to meet the demand. Like it or not, these early E-kits had taken the world by storm and were here to stay, thanks to David Simmons. Fast forward to 2015 and one quickly realizes that electronic drums are now as common as electric guitars, in studios and on the stage. Today, drummers have many choices when it comes to choosing an E-Kit. However, many of us have remained loyal to the brand all the while beating our hexes into battle scarred chunks of rubber, wood, plastic renditions of and gasping for air. Or worse.. non-functional and left for dead. Fear not, all is not lost.

In Part 1, we will learn how to clean and reclaim the appearance of our once immaculate vintage hexes. While the procedure to disassemble and refurbish every pad differs slightly from one pad version to another, I will focus mainly on the SDS9 pads... sometimes referred to as the Mk. 4's… as they are the most common. For the purpose of this exercise it is assumed that the pads are not physically cracked, damaged or missing any parts. For cracked or broken shells, a visit to a plastics repair outlet can usually yield favourable results. At some point later in the year, we will learn how to repair ailing and non-functioning pads.

Gather and prepare.

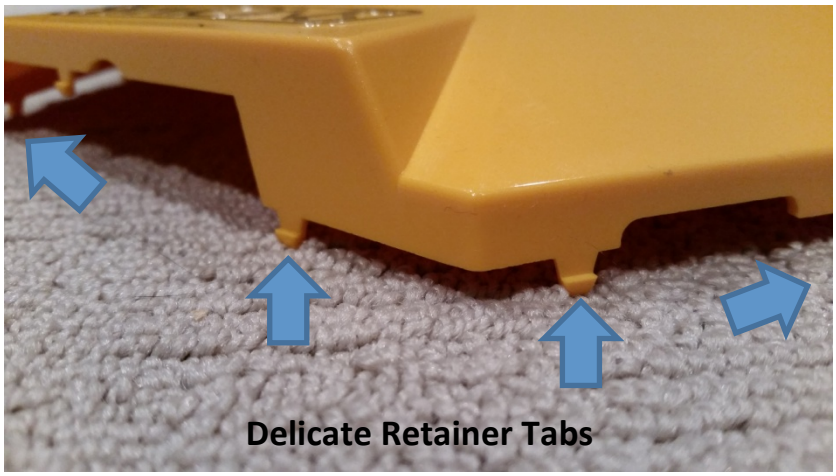
First you'll need some tools and materials from your local hardware store:

- Wet/Dry Sandpaper. I use 320, 400, 600, 800, 1500 and 3000 Grit
- Spot Sanding Pen. Not mandatory but good for small areas
- Sanding Block. Get a good and comfortable one because you'll be using it a LOT !
- Buffing Wheel with Power Drill attachment & Microfibre sock
- KIWI Express Shine Shoe Polish. Very effectively eliminates the whitish residue on black rims and lasts forever
- NOVUS 1, 2, 3 Plastic Repair System
- "Super Clean" and "Auto Glym" Spray. For rubber surface cleaning and conditioning
- Disposable Respirator Mask, NIOSH N95 Rating. Unless you want to breathe plastic particulate, this is a MUST.
- A clean toothbrush, container for water, plenty of microfibre cloths and rags

1. Restoring the shell

Place the pad upside down with the shell side up on a solid workbench or flat table that won't wobble or slide around, and be ready to get it wet and dirty. Do not use a work area prone to damage from water. At this point I would usually remove the shell VERY CAREFULLY from the pad. I DO NOT recommend working on a shell that is not detached from a pad due to the high probability that seeping water and debris will likely destroy the pad's internals. Ok, you've been warned. Let's do this.

On SDS9’s and similar pads, the safest and easiest way to accomplish this (without breaking any of the seriously undersized and delicate retainer tabs located on all six sides of the shell) is to place an index finger into the pad’s mounting hole and push up against the shell. A fair amount of effort may be required but it will eventually pop off... with the far end of the shell possibly still attached. Carefully detach and remove the shell. Place the shell (tabs down) onto a thick and water absorbent towel or cloth. It should be thick enough to prevent the tabs from breaking off while the shell is being sanded.



With other Simmons pads, the shells might be affixed with staples, screws or glue that could be carefully removed.

Now that the shell is off, it’s an excellent time to buff away the whitish residue and polish up the black rim using a KIWI Express Shine Shoe Polisher. Of the many other products I’ve tried, this is the only one that works and the application lasts forever. It may require a lot of buffing with the polisher but eventually you will see the white disappear and a black lustre appear. Make sure to apply some pressure while buffing the rim edges. Wipe any excess away and set the pad aside to dry.

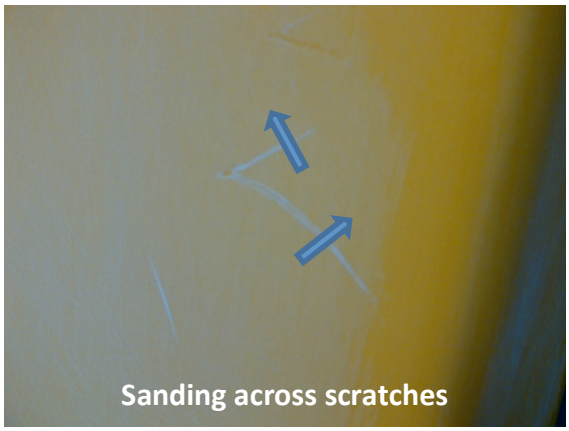
Before you start…

- It takes a little practice and a lot of time to achieve the best results. Be prepared to do plenty of sanding. Reconditioning a single pad can take many hours, possibly days depending on its condition. Rushing through the process will likely yield unsatisfactory or potentially catastrophic results.
- Do not use powered sanders. It’s best to block-sand manually in order to have better control and ‘feel’ of the task.
- With the exception of some early issue SDSV Mk.1’s, the shells are thin and can crack easily!! Over-sanding may result in holes, cracks or other damage!! Use cool clean water to help prevent the plastic from overheating. Overheated plastics may get brittle, crack or warp out of shape.
- Wear a protective respirator mask!!
- Lastly, don’t attempt this if you aren’t 100% comfortable with sanding plastics or if a shell has numerous and severe nicks and gouges, or is cracked. Brittle, faded or ‘yellowed’ shells pose another problem. In these cases it might be best to visit a plastics repair shop for an evaluation.

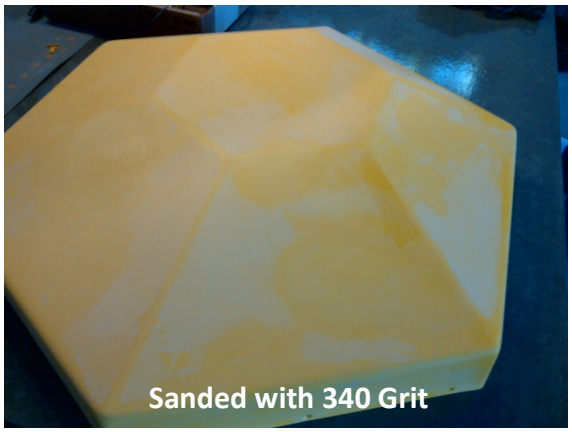
Sanding… more sanding… and even more sanding. See a pattern here yet?

Now that we have the shell off, we can inspect and evaluate the condition of the finish. In all cases, we begin sanding with coarse grits of sandpaper and gradually work our way to the finer grits as the imperfections and damage are lessened and eventually disappear. So let’s get busy...

From bad to worse?



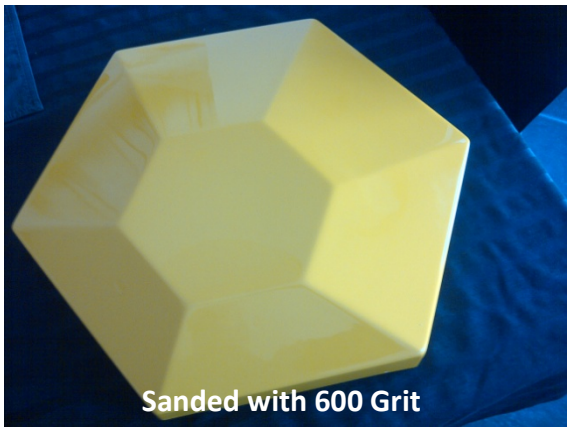
To tame very deep damage I start with a 320 to 400 Grit paper and sand in a straight motion 90 degrees to the scratch. In other words *across* the scratch or gouge, not *along* it. Keep the paper and shell wet, and wipe away the whitish plastic goo and debris regularly. Rinse the paper often. Work the area until the gouge appears to be half as deep, then change to 800 Grit paper and now sand *at 45 degrees* to the scratch until the gouge is again half as deep. Change to 1200 Grit and sand once again at 90 degrees. Change to 1500 Grit and sand at 45 degrees. Once all the imperfections are sanded out you should end up with a grey and dull but smooth shell... now looking much worse than it did when you began. Run a fingernail over the shell to ensure there are no scratches that snag. Sand any offenders with 1500 Grit until they're gone. Sanding in and around the SIMMONS logo is tricky, so use extreme caution and only strip off the top coated letter paint with *Fine* Grit paper or a *Sanding Pen* if necessary ensuring to not sand away the raised lettering itself.



There is no set "formula" insofar as what Grits to use… but moving up in increments of 2x the previous Grit paper pretty much ensures the best range of "bite" required to achieve the desired results.

For less severe damage ranging from shallow to fine scratches, I choose a finer Grit paper to start… say a 1000 or 1200 Grit, and work my way up from there. For the slightest of damage or 'spiderweb' marks, I start with 1500 Grit. In other words, the *nastier or deeper* the damage, the *lower the Grit* numbered paper should be to start.

Almost there…



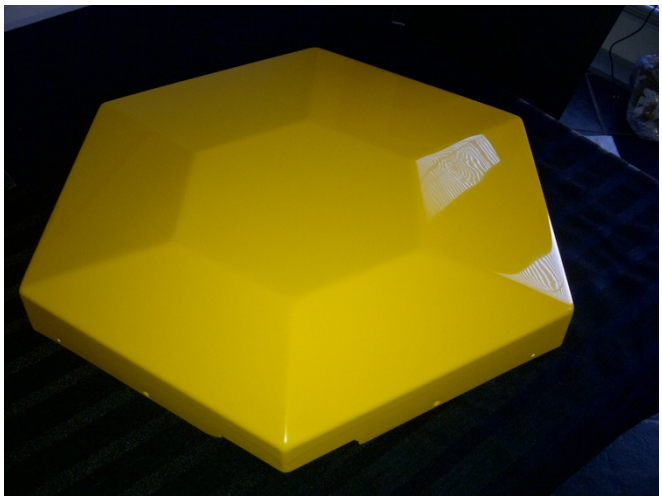
And now, the fun part. First, wash away all the grey goo and residue from the entire shell with clean cool water and wipe it dry. Soak up a piece of 2000 Grit Paper and wet the shell. Sand the entire shell in *circular motions* so that it has a uniform dull and greyish look to it. Clean away the goo and repeat with a new piece of 2000 Grit. Clean away the goo and wipe the shell dry with a microfibre cloth and check to ensure that it is free of any remaining imperfections… going back a Grit level or two to tame any offenders if necessary and eventually returning to this step in the process. Our final passes with paper over the shell will be with a wetted piece of 3000 Grit paper. At this stage it is important to use clean water and to keep the shell clear of any goo that may churn up. I normally go over the shell twice, keeping the 3000 Grit paper very wet and clean. I use a new piece with each pass over the shell. A final rinse of the shell and a wipe down with a clean microfibre cloth should yield a shell that looks less dull and greyish and almost glossy in some areas but still far from perfect… with a once painted SIMMONS logo now without colour

Bring on the shine!

Now we can bring out the power tools!! Woohoo!! Mount a *Buffing Wheel* to a variable speed power drill and slip a mirofibre sock over the wheel. Secure the sock with *Duct tape* if necessary to ensure it will not fly off while in motion.. making sure the surface of the sock is tight and flat against the wheel. Ensure that nothing but the microfibre cloth comes into contact with the shell at any time, otherwise damage or gouging may result.

Apply a generous amount of *NOVUS #3* to about 1/6th of the shell area and spin the drill up to about mid speed. We don't want the drill spinning too fast where it will melt and distort the plastic, or too slow where it will simply churn up a soup of brown and unsavory goo. Move over the work area slowly while applying very light pressure on the drill. The plastic will heat up so it it's important to keep moving and to prevent overworking an area for too long. Once done, do not clean the wet residue. Let it dry and move to another area on the shell and apply NOVUS #3 and repeat the procedure, and again until the entire shell is done. Wipe away any excess goo with a clean, dry Microfibre cloth and repeat the entire procedure with NOVUS #3 twice more, ensuring clean and dry Microfibre cloths are used.

Now *that's* what I'm talking about!!



By now the shell's appearance should be shiny and drastically improved. All visible damage, sanding marks and scratches should be all but gone. Gently wipe away any dry residue with a clean microfibre cloth. Now, apply a generous amount of *NOVUS #2* and repeat the previous step. Wipe away any residue with a clean dry Microfibre cloth and you should now have a shell that is glossy, smooth and beautiful. At this point one may opt to apply a coat or two of high quality car wax and polish up the shell to an even higher gloss. Note that car waxes sometimes contain detergents or ingredients that may dissolve or smudge the painted-on SIMMONS lettering. It's best to avoid that area with any waxes as you may be faced with a huge mess to clean.

At this point we can set the shell aside and turn our attention to removing the playing surface in order to clean and condition it. Or we can simply reattach the shell and be done with our cosmetic restoration. If the former, skip ahead to "Cleaning the playing surface" in the next section. Otherwise place the pad with the playing surface side down on a cloth. Carefully reattach the shell to the pad by ensuring the shell's retainer tabs are lined up properly and along the inside the rim, working from the shell edges and "squeezing" to bend the shell slightly to snap it into place. Do not press or apply pressure on the center of the shell as it will "flatten" it out and damage or break the retainer tabs. It can take some effort but eventually the shell will pop into place.

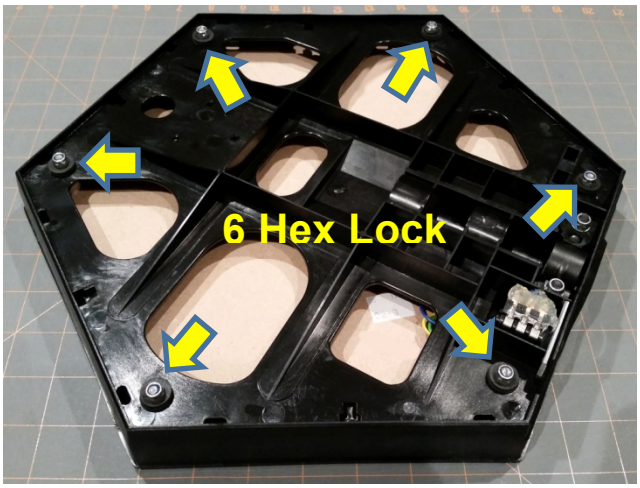
We finish up the shell by repainting the top of the SIMMONS lettering. With a little practice, a steady hand and a lot of patience, one can achieve excellent results using a wide-tipped *Permanent Marker* or a small paint brush and some plastic paint.

2. Cleaning the Playing Surface

For this step, we will require the following:

- Super Clean Degreaser
- Auto Glym Vinyl and Rubber Care
- Clean toothbrush
- Several Microfibre Cloths
- Socket and Wrench Set

A word of caution: the following is <u>not</u> recommended for rubber surfaces that are cracked, torn or worn out. Water, cleaning spray and conditioner liquids will seep through open cracks and tears may damage the wooden base, FSRs or other components inside the various pad types. Inspect the playing surfaces very carefully for such damage and then decide if safe to continue.



Once a shell has been removed from a Mk.4 and similar style pad, dismantling it is a little tricky but very simple. Place the pad upside down on a cloth. Using a <u>hand operated</u> socket wrench, gently remove the six Hex Nylon Lock Nuts and washers. Push down gently on the wooden base while slowly lifting away the rim. Be very careful to avoid snagging or tugging on any of the wires as damage to the wiring or Piezo pickup may occur as a result. Remove and take note of any other washers or spacers and their placement on the six bolts. There should be enough slack in the wire to allow reorienting the playing surface and rim so that the rubber is now facing up and laying on a towel or protective cloth, ready to be cleaned. If not, we may need to remove the ¼" jack assembly from its slot… or simply remove the hex nut and washers that secure the jack to the mounting plate at the front of the ¼" jack and slide the jack and wiring away from the rim. In this manner, we would end up with a playing surface assembly that is now completely separate from the rim… but along with it some delicate wiring and a Piezo Pickup to be mindful of.

With a towel or protective cloth under the playing surface assembly, wet the rubber surface playing area (topside only) with *Super Clean Degreaser spray* and let it soak in for about 15 seconds but do not let it dry. Be careful to not overspray the area and wipe up spills or drips onto other components quickly. Then, using a clean dry rag or microfibre cloth, wipe away the grime. Repeat until the rag is more or less clean after each wipe. Then, using another clean rag, rinse the newly cleaned surface with plenty of water. Ensure that the cleaner residue is rinsed off completely and pat the surface dry. Then, spray a light film of *Auto Glym Vinyl and Rubber Care* onto the surface and let it soak in for about 20 minutes then wipe away any excess. You should end up with a clean and shiny playing surface.

Reassemble the pad, snap on the shell, and you're done. That's it… that's all. Until next time….